

REMARKS

Claims 1-30 are pending. In light of the amendments and remarks, Applicant believes the pending claims are in condition for allowance.

The § 112, Second Paragraph, Rejection

Claims 27-30 were rejected under 35 USC § 112, second paragraph, as allegedly being mis-descriptive. More specifically, the Office Action says computer code does not receive digital signal, but that processors do. In a sincere effort to expedite prosecution, Applicant amended the claim to recite “computer code for a processor that receives digital signals including telephony sounds.” Accordingly, the rejection is overcome.

The § 103(a) Rejection based on Berestesky

Claims 1-2, 6-11, 22-27, and 29-30 were rejected under 35 USC § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,321,194, issued November 20, 2001 to Berestesky. Accordingly, it is asserted that Berestesky discloses or suggests all the features of the claims. For the following reasons, Applicant respectfully traverses the rejection.

Berestesky describes techniques for detecting voice in audio signals, such as for use in automated calling systems. The reference is cited as showing that frequency-domain maxima can be extracted from audio signals and compared to thresholds in order to determine that a human voice is present in the audio signals (see col. 2, lines 1-27). Even assuming this as correct, the reference does not support a prima facie case of obviousness.

Berestesky does not disclose or suggest detecting whether noise is present in the frequency domain conversion of the digital signals. For example, claim 1 recites the following:

“detecting whether noise is present in the frequency domain conversion of the digital signals”.

The Office Action does not show that the reference discloses or suggests this feature. Instead, the Office Action alleges that Berestesky teaches detecting speech sounds amid tones based on parameters. At no point does the Office Action allege that Berestesky discloses detecting noise as claimed.

Additionally, Berestesky does not disclose or suggest applying a filter to remove the noise. For example, claim 1 recites the following:

“applying a filter to remove the noise if noise was detected in the frequency domain conversion of the digital signals”.

The Office Action does not show that the reference discloses or suggests this feature. Instead, the Office Action cites a section of the reference (col. 6, lines 44-51) and asserts that the reference teaches a computer program product that makes these “software filters.” A closer review of this section of the references reveals that the reference is not disclosing a filter at all, but a voice detection technique. Thus, the reference does not disclose applying a filter to remove the noise as claimed.

In an attempt to establish a prima facie of obviousness, the Office Action stated as follows:

At the time of the invention, it would have obvious to a person of ordinary skill in the art at the time the invention was made to apply some well-known low-pass, high-pass, band-pass or notch filters in the art depending on the type of noise detected. This filtering will reduce the noise and provide an enhancement of sound quality.

(page 3, emphasis supplied). Berestesky was cited as describing voice detection, not noise detection. Therefore, asserting that known filters can be allegedly utilized to filter the noise detected in Berestesky mischaracterizes the reference. If the Office Action is alleging that the voice in Berestesky is “noise” as claimed, then filtering out the voice (see claim language that recites the noise is removed) would appear to render an automated calling system useless. Thus, filtering out voice would not enhance the sound quality as alleged.

In summary, a prima facie of obviousness has not been established. The Office Action has not shown that Berestesky discloses or suggests all the features of claim 1 or any of the other claims. Accordingly, claims 1-2, 6-11, 22-27, and 29-30 are patentably distinct over the reference.

The § 103(a) Rejection based on Miller

Claims 1-4, 6-11, 12-13, 15-16, 18-19, 21-27, and 29-30 were rejected under 35 USC § 103(a) as being allegedly unpatentable over U.S. Patent No. 4,820,059, issued April 11, 1989 to Miller et al. (hereinafter “Miller”). Accordingly, it is asserted that Miller discloses or suggests all the features of the claims. For the following reasons, Applicant respectfully traverses the rejection.

This rejection is very similar to the one based on Berestesky. The Office Action alleges that Miller describes detecting speech sounds by analyzing a frequency spectrum. Even assuming this is correct, as before, the Office Action does not cite where Miller describes detecting noise or applying a filter to remove the noise as recited in claim 1.

Again, in an attempt to establish a prima facie case of obviousness, the Office Action states that it would have been obvious to apply filters to “the noise detected” (see page 5). Miller has not been alleged to detect noise, but to detect speech (or voice). If speech is equated to noise, the removal of the speech would seem to adversely impact the way in which the speech processing apparatus described in Miller operates.

In summary, a prima facie of obviousness has not been established. The Office Action has not shown that Miller discloses or suggests all the features of claim 1 or any of the other claims. Accordingly, claims 1-4, 6-11, 12-13, 15-16, 18-19, 21-27, and 29-30 are patentably distinct over the reference.

The § 103(a) Rejection based on Zhao

Claims 1-4, 6-11, 12-13, 15-16, 18-19, and 21-27 were rejected under 35 USC § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,480,823, issued November 12, 2002 to Zhao et al. (hereinafter “Zhao”). Accordingly, it is asserted that Zhao discloses or suggests all the features of the claims. For the following reasons, Applicant respectfully traverses the rejection.

This rejection is very similar to the ones based on Berestesky and Miller. The Office Action alleges that Zhao describes techniques for detecting speech sounds. Even assuming this is correct, as before, the Office Action does not cite where Zhao describes detecting noise or applying a filter to remove the noise as recited in claim 1.

As before, in an attempt to establish a prima facie case of obviousness, the Office Action states that it would have been obvious to apply filters to “the noise detected” (see page 7). Zhao has not been alleged to detect noise, but to detect speech. If speech is equated to noise, the removal of the speech would seem to adversely impact the way in which the speech detection system described in Zhao operates.

In summary, a prima facie case of obviousness has not been established. The Office Action has not shown that Zhao discloses or suggests all the features of claim 1 or any of the other claims. Accordingly, claims 1-4, 6-11, 12-13, 15-16, 18-19, and 21-27 are patentably distinct over the reference.

The § 103(a) Rejection based on Berestesky or Miller and Harris or Fieldler

Claims 5, 14, 17, and 28 were rejected under 35 USC § 103(a) as being allegedly unpatentable over Berestesky or Miller and U.S. Patent No. 4,255,620, issued March 10, 1981 to Harris et al. (hereinafter “Harris”) or U.S. Patent No. 5,752,225, issued May 12, 1998 to Fieldler. Accordingly, it is asserted that some combination of two of these references disclose or suggest all the features of the claims. For the following reasons, Applicant respectfully traverses the rejection.

Each of these claims are dependent claims and accordingly include all the features of the independent claims. The Office Action has not shown how Harris or Fielder would remedy the deficiencies of the primary references Berestesky or Miller with respect to the independent claims. Accordingly, these claims are patentably distinct for at least the same reasons as described above.

Conclusion

For the foregoing reasons, Applicant believes all the pending claims are in condition for allowance and should be passed to issue. If any fees are due in connection with the filing of this amendment, the Commissioner is authorized to charge such fees to Deposit Account 19-2179.

Respectfully submitted,

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